

Please insert the following Abstract:

#### ABSTRACT OF THE DISCLOSURE

The invention relates to a composition for treating magnesium alloys aimed at improving the resistance thereof to corrosion. The composition is an aqueous solution with a pH ranging between 7 and 10, containing a niobium salt, hydrofluoric acid, and optionally a zirconium salt, phosphoric acid, and boric acid. The alloy is treated in an electrochemical cell in which said alloy acts as an anode. The cell contains an inventive composition at a temperature between 20°C and 40°C as an electrolyte. An initial voltage which is sufficient to create a current density between 1.5 and 2.5 A/dm<sup>2</sup> is applied to the cell, whereupon the voltage is progressively increased to a level ranging between 240 and 330 V in order to maintain the initial current density.